UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/530,611 | 04/07/2005 | Atsushi Nojiri | ARGM-108US | 6737 |

23122 7590 06/21/2007

RATNERPRESTIA
P O BOX 980
VALLEY FORGE, PA 19482-0980

| EXAMINER | |
|---|---|
| CHOWDHURY, AFROZA Y | |
| **ART UNIT** | **PAPER NUMBER** |
| 2629 | |
| **MAIL DATE** | **DELIVERY MODE** |
| 06/21/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/530,611 | NOJIRI ET AL. | |
| | Examiner | Art Unit | |
| | Afroza Y. Chowdhury | 2629 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on 4/7/2005

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) 1-17 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-17 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 4/7/05 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 4/7/2005.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 5, 7, 8, and 10–12 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshioka (US Patent 6351705).

As to claim 1, Yoshioka discloses a display controlling apparatus, comprising:

data outputting units (fig. 1(11, 13), col. 3, lines 26-33) to be electrically connectable to respective display apparatuses (fig.1(2, 3), col. 3, lines 45-48);

an information inputting unit (fig. 1(7), col. 3, lines 35-41) to be operable to have inputted therein data to be required for said display apparatuses (fig.1(2, 3), col. 3, lines 45-48)to display on screens;

a controlling unit (fig. 1(4), col. 3, lines 34-44) for producing image data on contents to be displayed by said display apparatuses (fig.1(2, 3), col. 3, lines 45-48) on the basis of said information inputted by said information inputting unit (fig. 1(7), col. 3, lines 35-41);

and a video memory (fig.1(10), col. 3, lines 42-44, VRAM) having stored therein said image data produced by said controlling unit (fig.1(4), col. 3, lines 34-44),

wherein said controlling unit (fig.1(4), col. 3, lines 34-44) is operative to output said contents to said display apparatuses (fig.1(2, 3), col. 3, lines 45-48) through said data outputting units (fig. 1(11, 13), col. 3, lines 26-33) on the basis of said image data stored in said video memory (fig.1(10), col. 3, lines 42-44, VRAM).

Claim 3 is rejected the same as claim 1 above since the claim limitations of both of those claims are the same.

As to claim 5, Yoshioka teaches a display controlling apparatus, in which said controlling unit (fig. 1(4), col. 3, lines 34-44) is operative to allow said contents to be sequentially received by said display apparatuses through said data outputting units (fig. 1(11, 13), col. 3, lines 26-33) in order of said data outputting units electrically connected to said display apparatuses in a period of a synchronization signal.

As to claim 7 and 8, Yoshioka discloses a display controlling apparatus, in which each of display apparatuses electrically connected to data outputting units (fig. 1(11, 13), col. 3, lines 26-33) has an operating unit for issuing an instruction to controlling unit (fig. 1(4), col. 3, lines 34-44) to select one or more contents,

and in which controlling unit (fig. 1(4), col. 3, lines 34-44) is operative to judge whether or not one or more contents selected by one of said display apparatuses are the same as one or more contents which are being outputted to the other of said display apparatuses (fig. 5), and to allow one of said display apparatuses to display information on whether or not one or more contents selected by one of said display apparatuses are the same as one or more contents which are being outputted to the other of said display apparatuses in response to said instruction issued by said operating unit of one of said display apparatuses (col. 4, lines 47-61).

As to claim 10, Yoshioka teaches a display controlling apparatus, in which said controlling unit (fig. 1(4), col. 3, lines 34-44) is operative to allow one or more contents to be utilized through said operating unit of one of said display apparatuses with the restriction on the use of said contents after allowing one of said display apparatuses to display said information that one or more contents selected by one of said display apparatuses are the same as one or more contents which are being outputted to the other of said display apparatuses (col. 4, lines 47-61).

As to claim 11, Yoshioka teaches a display controlling apparatus, in which said display apparatuses each has an operating unit (col. 4, lines 47-61, command indications) for issuing an instruction to said controlling unit to output

one or more contents, said display apparatuses being assigned to respective priority sequences,

in which said controlling unit (fig. 1(4), col. 3, lines 34-44) is operative to judge whether or not one or more contents which are being outputted to one of said display apparatuses are the same as one or more contents selected by the other of said display apparatuses before judging whether or not one of said display apparatuses exceeds in priority sequence the other of said display apparatuses when the judgment is made that one or more contents selected by the other of said display apparatuses are the same as one or more contents which are being outputted to one of said display apparatuses,

and in which said controlling unit is operative to allow the other of said display apparatuses to display one or more contents the same as one or more contents which are being outputted to one of said display apparatuses with the restriction on the utilization of said contents when the judgment is made that one of said display apparatuses exceeds in priority sequence the other of said display apparatuses (col. 4, lines 18-27).

As to claim 12, Yoshioka teaches a display controlling apparatus, in which said controlling unit (fig. 1(4), col. 3, lines 34-44) is operative to allow said priority sequence assigned to each of said display apparatuses to be changed by each of said operating unit of said display apparatuses (col. 4, lines 18-27).

3. Claim 13–15 is rejected under 35 U.S.C. 102(b) as being anticipated by Chee (US Patent 5694141).

As to claim 13, Chee discloses a display controlling apparatus for allowing display apparatuses to display respective images represented by image data, comprising:

a multiplexing unit (fig. 14(84), col. 17, lines ) for multiplexing said image data indicative of said images to be displayed by the display apparatuses (fig. 14 (14/24, 14/24'));

a buffer memory (fig. 14(38), col. 17, lines 19-23, DRAM) having stored therein said multiplexed image data;

and demultiplexing unit (fig. 15(124, 124'), fig. 16(128), col. 18, lines 32-40) for demultiplexing said multiplexed image data stored in said buffer memory (fig. 14(38), col. 17, lines 19-23, DRAM) to output said demultiplexed image data to each of said display apparatuses (fig. 14 (14/24, 14/24')).

As to claim 14, Chee teches a display controlling apparatus, which further comprises:

a synchronization signal producing unit (fig. 13(108)) for producing a synchronization signal to be constituted by a pulse string having a predetermined period,

and in which said demultiplexing unit . 15(124, 124'), fig. 16(128), col. 18, lines 32-40) is operative to demultiplex said multiplexed image data stored in said

buffer memory (fig. 14(38), col. 17, lines 19-23, DRAM) by allowing said multiplexed image data to be selectively received by each of said display apparatuses in said predetermined period of said synchronization signal.

As to claim 15, Chee teaches a display controlling apparatus, which further comprises:

a synchronization signal producing unit (fig. 13(108)) for producing a synchronization signal to be constituted by a pulse string having a predetermined period,

and in which said demultiplexing unit . 15(124, 124'), fig. 16(128), col. 18, lines 32-40) is operative to demultiplex said multiplexed image data stored in said buffer memory (fig. 14(38), col. 17, lines 19-23, DRAM) by allowing said multiplexed image data to be received by one of said two display apparatuses on each of leading edges of said synchronization signal, and to be received by the other of said two display apparatuses on each of trailing edges of said synchronization signal.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshioka (US Patent 6351705) in view of Shiuan et al. (US Pub. 2004/0075622).

As to claim 2, Yoshioka teaches a navigation system having a two display devices (fig. 1) electrically connected to said signal outputting units.

Yoshioka does not explicitly teach a display controlling apparatus in which controlling unit is operative to adjust the resolution of each of said contents to be displayed by display apparatuses on the basis of the number of display apparatuses.

Shiuan et al. teaches a dual display computer system (fig. 1) where one display is running in a high-resolution mode and other display is running in a lower resolution mode (page 3, [0030]).

Therefore, it would be have been obvious to one skill in the art at the time of the invention was made to combine the dual display computer system of Shiuan et al. with Yoshioka's navigation system to make a display controlling apparatus where the output contents to be displayed at adjusted resolution by display apparatuses through data outputting units and maintain resolution of each of said contents to be displayed by said display apparatuses when number of display apparatuses is equal to one.

As to claim 4, Shiuan et al. teaches image data display mechanism for continuously displaying data on dual display devices (page 3, [0021]).

It is obvious for a display controlling apparatus, to have image data with layers to be collectively defined as data structure, and each of said contents to be displayed by said display apparatuses is constituted by data assigned to one or more of said layers.

As to claim 6, Yoshioka discloses a display controlling apparatus, in which the number of said display apparatuses electrically connected to said data outputting units is equal to two (fig. 1(2,3)), and in which said controlling unit (fig. 1(4), col. 3, lines 34-44) is operative to allow contents to be displayed one of two display devices.

Yoshioka does not explicitly teach that one of said two display apparatuses receiving data on each of leading edges of said synchronization signal, and the other of said two display apparatuses receiving data on each of trailing edges of said synchronization signal.

Shiuan et al. teaches possible phage differences of two display devices (page 3, [0030]).

Therefore, it would be have been obvious to one skill in the art at the time of the invention was made to combine the dual display computer system of Shiuan et al. with Yoshioka's navigation system to make a display controlling apparatus where two display devices receiving data at two different edges of synchronization signal.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshioka (US Patent 6351705) in view of Ciolac (US Patent 6970173).

As to claim 9, Yoshioka discloses a display controlling apparatus in which change can be carried out by a touch sensor (col. 3, lines 66 – col. 4, lines 14).

Yoshioka does not teach a display apparatus where information displayed represented by a pointer.

Ciolac teaches a display with a pointer (fig. 5, col. 6, lines 56-62).

Therefore, it would be have been obvious to one skill in the art at the time of the invention was made to combine Ciolac's display device with Yoshioka's navigation system to make a display in order to select command from the menu displayed on the screen.

7. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chee (US Patent 5694141) in view of He et al. (US Patent 6323849).

As to claim 16, Chee discloses a display controlling apparatus, in which a multiplexing unit is operative to display images by the display apparatuses.

Chee does not explicitly teach said multiplex unit is used to adjust resolution on the basis of the number of display apparatuses electrically connected to data outputting units.

He et al. teaches a display device where multiplex methodology is used to reduce power consumption while maintaining a desired resolution.

Therefore, it would be have been obvious to one skill in the art at the time of the invention was made to incorporate display device of He et al. in Chee's display controlling apparatus in order to use a multiplexing unit to adjust resolution for displayed images of each display device.

As to claim 17, it would be obvious for a display controlling apparatus, in which a multiplexing unit is operative to adjust said resolution of each of images to be respectively displayed by the display apparatuses in inverse proportional relationship with the number of display apparatuses electrically connected to data outputting units.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Afroza Y. Chowdhury whose telephone number is 571-270-1543. The examiner can normally be reached on 7:30-5:00 EST, 5/4/9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AC

6/4/2007

XIAO WU
SUPERVISORY PATENT EXAMINER